## **ABSTRACT**

[0058] A solution containing randomized nanotubes is introduced into a channelized mold and the solution is dried resulting in a number of parallel nanotubes stretched across the walls of the channel. In one embodiment, the channels are open along their longitudinal axis and that opening is covered with a material, such as silicon. The solution is allowed to dry, preferably at room temperature, and as it recedes from the channel the receding solution tends to stretch certain of the nanotubes across the channel so that they become attached to the opposite walls of the channel. By varying the shapes and width of the channel sides various controlled nanotube lengths can be achieved. The mold, with the constructed nanotubes, can be positioned to mate with another structure for the transfer of the nanotubes to the second structure.